# New species and new records of Perkinsiella (Hemiptera: Delphacidae) from Papua New Guinea

#### R G. FENNAH

co Commonwealth Institute of Entomology, c/o British Museum (Natural History), Cromwell Road, London SW7 5BD, UK

#### Abstract

Six species of Perkinsiella, P. macrinus sp. n., P. diagoras sp. n., P. mycon sp. n., P. bulli sp. n., P. falcipennis sp. n. and P. boreon sp. n., are described from material collected in Papua New Guinea. New locality records are given for the sugar-cane pest P. saccharicida Kirk., P. vastatrix (Bredd.), P. rattlei Muir, P. sinensis Kirk., P. lalokensis Muir, P. papuensis Muir and P. thompsoni Muir.

The following notes and descriptions refer to material collected in Papua New Guinea by Mr. R. M. Bull, of the Southern Sugar Experiment Station, Bundaberg, Queensland, in May and June 1974 and sent to the Commonwealth Institute of Entomology for study.

The term 'suspensorium' used below refers to an elongate Y-shaped sclerite developed medially in the membrane between the ninth and tenth segments of the x-Nomen of the male, connecting the base of the aedeagus with the lateroventral angles of the analysement.

#### Perkinsiella Kirkaldy

Perkinsiella Kirkaldy, 1903, 179. Type-species Perkinsiella saccharicida Kirkaldy.



re 1-5.—Perkinsiella saccharicida Kirkaldy. 1, male genitalia, left side; 2, the same, posteroventral view; 4, aedeagus, left side; 5, mesal edge of basal part of left first valvifer.

(L 3387)

# Perkinsiella saccharicida Kirkaldy (Fig. 1-5)

Perkinsiella saccharicida Kirkaldy, 1903, 179.

Acdeagus with a minute tooth, directed dorsad, on left at apex; a pair of stort flattened spines, directed laterocephalad, laterally at three-fifths from base. Mediastem of suspensorium longer than broad at base (3:1), with sides parallel.

Mesal margin of first valvifers at base produced in a convex lobe. First valvular symmetrical at base.

Material examined. PAPUA NEW GUINEA: 1 &, Central District, Port Moresby Lesima Creek, 26.v.1974; 1 &, Northern District, Kokoda Road, 22.v.1974 (R. M. Buillesima Creek, 26.v.1974; 1 & Northern District, Kokoda Road, 22.v.1974 (R. M. Buillesima Creek, 26.v.1974; 1 & Northern District, Kokoda Road, 22.v.1974 (R. M. Buillesima Creek, 26.v.1974; 1 & Northern District, Kokoda Road, 22.v.1974 (R. M. Buillesima Creek, 26.v.1974; 1 & Northern District, Kokoda Road, 22.v.1974 (R. M. Buillesima Creek, 26.v.1974; 1 & Northern District, Kokoda Road, 22.v.1974 (R. M. Buillesima Creek, 26.v.1974; 1 & Northern District, Kokoda Road, 22.v.1974 (R. M. Buillesima Creek, 26.v.1974; 1 & Northern District, Kokoda Road, 22.v.1974 (R. M. Buillesima Creek, 26.v.1974; 1 & Northern District, Kokoda Road, 22.v.1974 (R. M. Buillesima Creek, 26.v.1974; 1 & Northern District, Kokoda Road, 22.v.1974 (R. M. Buillesima Creek, 26.v.1974; 1 & Northern District, Kokoda Road, 22.v.1974 (R. M. Buillesima Creek, 26.v.1974; 1 & Northern District, Kokoda Road, 22.v.1974 (R. M. Buillesima Creek, 26.v.1974; 1 & Northern District, Kokoda Road, 22.v.1974 (R. M. Buillesima Creek, 20.v.1974; 1 & Northern District, Kokoda Road, 22.v.1974 (R. M. Buillesima Creek, 20.v.1974; 1 & Northern District, Kokoda Road, 20.v.1974;

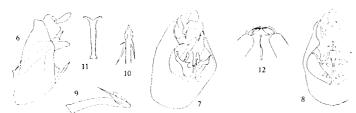


Fig. 6-12.—Perkinsiella vastatrix (Breddin), 6, male genitalia, left side; 7, the same, posterior view; 9, aedeagus, left side; 10, apical half-aedeagus, ventral view; 11, suspensorium; 12, base of ovipositor, ventral view.

# Perkinsiella vastatrix (Breddin) (Fig. 6-12)

Dicranotropis vastatrix Breddin, 1896, 107.

Aedeagus with a moderately long spine dorsally at base of orifice, directed dorse-cephalad; a smaller spine on right at three-quarters from base, directed laterocephalad a slightly more slender spine of about the same length on left at about six-severate from base. Median stem of suspensorium longer than broad at base (4:1), with subshallowly convex in distal three-quarters.

Mesal margin of first valvifers at base rounding rather abruptly, not produced a pair of ovate processes, hollowed on posterior surface, extending from below har of first valvifers to meet in middle line. First valvulae not quite symmetrical at have

Material examined. PAPUA NEW GUINEA: 10 \$\circ\$, 10 \$\circ\$, Morobe District, 12/Bubia Expt. Stn., 14.vi.1974; 25 \$\circ\$, 12 \$\circ\$, Madang District, Madang, 5.vi.1974; 8 11 \$\circ\$, Central District, Port Moresby, Lesima Creek, 26.v.1974 (R. M. Bull).

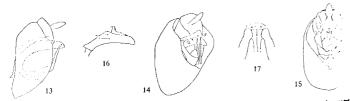


Fig. 13-17.—Perkinsiella sinensis Kirkaldy. 13, male genitalia, left side; 14, the composterolateral view from left; 15, the same, posteroventral view; 16, aedeagus, left six 17, base of ovipositor, ventral view.

### Perkinsiella sinensis Kirkaldy (Fig. 13-17)

Perkinsiella sinensis Kirkaldy, 1907, 138.

Aedeagus relatively short, with a pair of short stout spines laterally at middle, the left spine slightly shorter than the right and situated slightly more distally. Median stem of suspensorium longer than broad at base (about 4:1), with sides converging distad.

Mesal margin of first valvifers at base moderately produced in a convex lobe. First valvulae symmetrical at base, pallid, with basal margin truncate.

Material examined. Papua New Guinea: 8 ♂, 6 ♀, Western Highlands, Mt. Hagen, Kuk Tea Res. Stn., 1.vi.1974 (R. M. Bull).

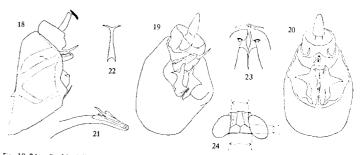


Fig. 18-24.—Perkinsiella lalokensis Muir. 18, male genitalia, left side; 19, the same, posterolsteral view from left; 20, the same, posterior view; 21, aedeagus, left side; 22, suspensorium; 23, base of ovipositor; 24, vertex, showing points between which measurements are taken.

# Perkinsiella lalokensis Muir (Fig. 18-24)

Ferkinsiella lalokensis Muir, 1910, 9.

Aedeagus relatively long, with a pair of spines arising dorsally at anterior margin of orifice, directed cephalad, one spine rather longer than the other and extending applicated for nearly half length of aedeagus.

Median stem of suspensorium longer than broad at base (about 4:1), with sides tradually converging distad.

Eighth pregenital sternite developed as two small, thin, narrow, slightly hollowed bingate-ovate lobes lying transversely. First valvifers with mesal margin abruptly and deeply hollowed near base, extreme basal inner angle sometimes slightly produced cphalad. First valvulae symmetrical, with inner margins separating from each other for a short distance distant of base.

Material examined. Papua New Guinea: 1 €, 3 ♀, Northern District, Kokoda Rad, Awala Village, 22.v.1974; 1 €, Madang District, Madang, 5.vi.1974; 4 €, 2 ♀, ⇔k District, Wewak, Salimbua Village, 6.vi.1974 (R. M. Bull).

# Perkinsiella papuensis Muir (Fig. 25-33)

ferkinsiella papuensis Muir, 1910, 9.

Aedeagus relatively short, with deep sides; dorsal margin moderately produced on in a subtriangular lobe directed dorsolaterad, and on right in a spine directed

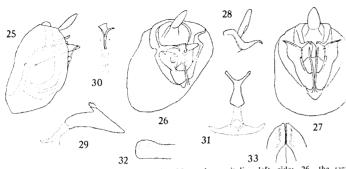


Fig. 25-33.—Perkinsiella papuensis Muir. 25, male genitalia, left side; 26, the sam: posterolateral view from left; 27, the same, posterior view; 28, posterior margin of an segment of male, left side; 29, adedeagus, left side; 30, adedeagus, posterior view; 31, suspessorium, with associated basal structures of aedeagus shown in broken line; 32, base of left states of the states

cephalad. Median stem of suspensorium relatively short, about twice as long as breed at base, with sides in basal two-thirds converging distad.

Mesal margin of first valvifers at base moderately produced in a convex lobe this slightly hollowed longitudinally. First valvulae symmetrical at base.

Material examined. PAPUA NEW GUINEA: 1 °C, Central District, Port Mores-Laloki River, 26.v.1974; 1 °C, Port Moresby, Lesima Creek, 26.v.1974; 1 °C, 1 °C, 1 °C, 1 °C, 1 °C, 26.v.1974 (R. M. Bull).

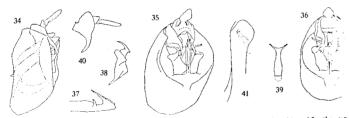


Fig. 34-41.—Perkinsiella thompsoni Muir. 34, male genitalia, left side; 35, the ure posterolateral view from left; 36, the same, posterior view; 37, acdeagus, left side; 38, generally, ventroposterolateral view from left; 39, suspensorium; 40, anal segment of male, in side; 41 base of left first valvier, ventrolateral view.

# Perkinsiella thompsoni Muir (Fig. 34-41)

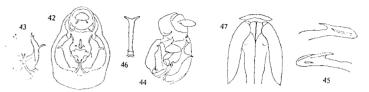
Perkinsiella thompsoni Muir, 1913, 240.

Aedeagus moderately long; a stout spine dorsally at apex, extending dorsoccefter for almost half length of aedeagus, a much shorter spine on right side at about two

thirds from base, directed dorsolaterad, and a small spine on left at middle, close to Jorsal margin, directed laterocephalad. Median stem of suspensorium short, longer than broad basally (about 2.5:1), with sides shallowly convex in basal half.

Mesal margin of first valvifers at base moderately produced in a convex lobe, which is inflected ventrad. First valvulae symmetrical at base.

Material examin d. Papua New Guinea: 4 of, 3 of, Central District, Port Moresby, Iesima Creek, 26.v.1974 (R. M. Bull).



F.g. 42-47.—Perkinsiella rattlei Muir. 42, male genitalia, posterior view; 43, genital styles and medioventral processes of pygofer, posteroventral view; 44, male genitalia, posterolateral cew from left; 45, aedeagus, right and left sides; 46, suspensorium; 47, base of ovipositor, ventral view.

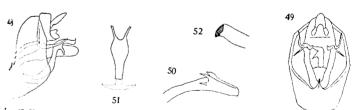
### Perkinsiella rattlei Muir (Fig. 42-47)

Perkinsiella rattlei Muir, 1910, 6.

Aedeagus with a long spine arising on left at about two-thirds from base, directed decroeephalad, and a smaller spine arising more distally on right, directed laterosphalad. Inner margin of genital styles near base produced mesad in a subrectangulate the.

Mesal margin of first valvifers at base rather weakly produced in a convex lobe. First valvulae symmetrical at base.

Material examined. PAPUA NEW GUINEA: 10 ♂, 10 ♀, Central District, Port Moresby, Laloki River, 26.v.1974 (R. M. Bull).



t 48-52.—Perkinsiella macrinus sp. n. 48, male genitalia, left side; 49, the same, posterior ca; 50, acdeagus, left side; 51, suspensorium; 52, base of right first valvula, ventrolateral view from right.

# Perkinsiella macrinus sp. n. (Fig. 48-52)

Vertex with basal compartment broader than long (2·2:1), wider at base than at end of anterior margin of eyes (1·3:1). From longer than broad at widest part (6:1), lateral margins slightly concave distad of widest part. Antennae with basal

segment not strongly laterally compressed, not twice as wide at apex as at base, second segment only weakly compressed and slightly dilated, widest at about one-third from base.

Dark reddish brown; vertex and horizontal areas of pronotum, mesonotum and metanotum, yellowish white. Frons distad of widest part, genae, clypeus at apex and procoxae and mesocoxae at base and apex, rostrum and legs except for longituding stripes on femora and transverse bands on protibiae and mesotibiae pallid, almost white. Post-tibial spur and valvifers of ovipositor, except basal margin of first valvifer pallid stramineous. Tegmina hyaline, with a broad reddish-brown vitta from base apex posterior to M but not including commissural margin; veins minutely granulate apical veinlets narrowly infuscate at margin. No fuscous spot on margin of clavas

Male genitalia as figured. Aedeagus relatively long, with two spines near midd: on left side, both short and directed cephalad and with the more dorsal spine close: the upper margin. Median stem of suspensorium longer than broad at base (about 3.5:1), sides convex in distal half.

First valvifers of ovipositor rather abruptly produced mesad at base in a she acutely-pointed lobe. Right first valvula markedly tumid at base and partly concealed base of left first valvula.

Male: length 3·3 mm, tegmen 3·5 mm. Female: length 3·9 mm, tegmen 4·0 mm

This species is distinguishable by the detailed structure of the male and femgenitalia. Superficially, the uniformly dark reddish brown coloration of the clypta and coxae and the dark tegminal vitta are almost characteristic.

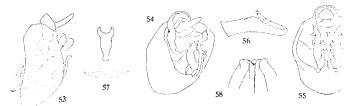


Fig. 53-58,—Perkinsiella diagoras sp. n. 53, male genitalia, left side; 54, the same, posterilateral view from left; 55, the same, posterior view; 56, aedeagus, left side; 57, suspensoral with associated basal structures of aedeagus shown in broken line; 58, base of oviposity ventral view.

#### Perkinsiella diagoras sp. n. (Fig. 53-58)

Vertex with basal compartment broader than long (2·5:1), wider at base that a level of anterior margin of eyes (1·3:1). From longer in middle line than broad widest part (1·5:1), lateral margins slightly concave distad of widest part. Anterwith basal segment only moderately compressed, not twice as wide at apex as at box second segment only weakly compressed, though carinate below, widest at one-time from base.

Frons reddish brown between eyes, with two pairs of linear markings submediffered two pairs of spots laterally, ochraceous; disc below eyes and genae, creamy with except for a pale yellowish-brown transverse band near frontoclypeal suture: a 7th of five distinct round pale spots above and before eye; clypeus yellowish brown.

median carina distally, lateral carinae and a longitudinal stripe on each side sordid white. Antennae with basal segment and base of second segment dark fuscous. Intercarinal areas of vertex, pronotum and mesonotum yellowish brown, lateral fields of mesonotum only a little darker than disc, except laterobasally, where a triangular fuscous area encloses a small round pale spot. Procoxue and mesocoxae sordid white, each with two fuscous bands; legs sordid white heavily suffused with fuscous longitudinally on the femora and in two broad transverse bands on the tibiae, post-tibial spur brownish yellow, dorsobasally fuscous. Tegmina hyaline, with faint brownish suffusion, base and apex of apical cell  $M_{1/2}$  and cells posterior to it fuscous, except near apical margin; veins with minute fuscous granules; no fuscous spot on hind margin of clavus.

Male genitalia as figured. Aedeagus moderately long, with a single short spine on left near upper margin at middle. Median stem of suspensorium longer than broad at base (about 3:1), wider in distal two-thirds than in basal third; sides sinuate, diverging distad.

Female with pregenital (7th) sternite well developed; eighth sternite short and broad, distinct. First valvifers feebly produced in a rounded lobe basally. First valvulae deeply pigmented, almost black, at base, asymmetrical, with base of right valvula projecting slightly farther mesad than that of left.

Male: length 3.9 mm, tegmen 5.0 mm. Female: length 4.9 mm, tegmen 5.7 mm.

Material examined. Holotype ♂, Papua New Guinea: Western Highlands, Mendi-Mt. Hagen Road, 3100 m, 3.vi.1974 (R. M. Bull) (Australian National Insect Collection no. 9424). Other material: 14 ♂, 15 ♀, with same data as holotype (1 ♂, 1 ♀ in British Museum (Nat. Hist.)).

This species is distinguishable by the structural details of the male and female senitalia. In coloration, the presence of brown intercarinal areas on the vertex, pronotum and mesonotum in conjunction with the absence of a fuscous spot on the hind margin of the clavus near the point of entry of the common claval vein is of some aid in identification.

The specific name is a noun in apposition.

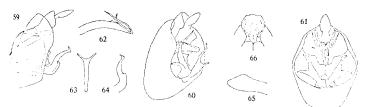


Fig. 59-66.—Perkinsiella mycon sp. n. 59, male genitalia, left side; 60, the same, posterolateral vew from left; 61, the same, posterior view; 62, aedeagus, left side; 63, suspensorium; 64, realtal style, lateral view of inner surface; 65, base of left first valvifer, lateroventral view; 66, seventh sternite and base of ovipositor, ventral view.

# Perkinsiella mycon sp. n. (Fig. 59-66)

Vertex with basal compartment broader than long (nearly 2-5:1), wider at base than at level of anterior margin of eyes (1-3:1). From longer in middle line than broad at widest part (1-7:1), lateral margins straight distad of widest part. Antennae with beal segment not laterally compressed or dilated, carinate below.

Yellowish brown; frons with four pairs of linear transverse marks submedially and a pair of spots on each side, and a row of four spots on genae below eyes ochraceous Mesonotal disc with a short broad band on each side of middle line anteriorly, becoming fainter and narrowing posteriorly, and one to three suffusions in each lateral field fuscous. Sclerites of lower surface of thorax more or less uniformly yellowish brown to fuscous. Protibiae and mesotibiae pallid at base and apex and with a dark fuscous band subapically; post-tibial spur fuscous or reddish brown, paler submarginally. Tegmina hyaline, a fuscous suffusion overlying veinlets R-M and M-Cu and extending into apical cell  $R_1$  and entirely covering cells  $M_1$  and  $M_{1+2}$  and cells  $M_{3+4}$  and Cu, except apically; a linear fuscous spot on margin near apex of common claval vein Veins finely and evenly granulate with fuscous.

Male genitalia as figured. Aedeagus moderately long, a moderately long slender spine on left at apex curving laterocephalad and a rather longer slender process dorsally at apex directed dorsocephalad. Median stem of suspensorium longer than broad at base (almost 6:1), with sides gradually diverging distad.

Seventh sternite produced caudad to form a broad ovate wrinkled plate. Eighth sternite very short. First valvifers moderately produced mesad at base in a lobe that is abruptly angulately bent at its basal angle. First valvulae symmetrical at base.

Male: length 4.5 mm, tegmen 4.3 mm. Female: length 4.9 mm, tegmen 5.3 mm.

Material examined. Holotype of, Papua New Guinea: Sepik District, Maprik Bainyik, 8.vi.1974 (R. M. Bull) (Australian National Insect Collection no. 9425). Other material: 1 of, 2 of, with same data as holotype; 1 of, 1 of, Sepik District, Maprik Balif No. 2 Village, 7.vi.1974; 1 of, Sepik District, Wewak North Coast, Salimbus Village, 6.vi.1974 (R. M. Bull).

This species is closely allied to *P. lalokensis* but is distinguishable in the male by the absence of paired medioventral processes on the pygofer, and in the female by the presence of an ovate wrinkled plate above the base of the ovipositor.

The specific name is a noun in apposition.

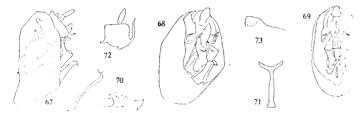


Fig. 67-73.—Perkinsiella bulli sp. n. 67, male genitalia, left side; 68, the same, posterolaters view from left; 69, the same, posterior view; 70, aedeagus and suspensorium, left sid: 71, suspensorium; 72, anal segment, left side; 73, base of left first valvifer, lateroventral view.

### Perkinsiella bulli sp. n. (Fig. 67-73)

Vertex with basal compartment broader than long (2:3:1), wider at base than F level of anterior margin of eyes (nearly 1:5:1). Frons longer in middle line than broad widest part (1:7:1), lateral margins slightly concave distad of widest part. Antenex with basal segment only very slightly compressed, not twice as wide at apex as a the second segment only slightly compressed and scarcely dilated, widest at a third from base, carinate below.

Frons light yellowish-brown between eyes, with two pairs of linear markings submedially and two pairs of spots laterally, creamy white; disc below eyes and genae creamy white, a narrow pale yellowish brown band transversely near frontoclypeal suture; clypeus yellowish brown in basal half, darker at sides, distally white. Antennae with basal segment pale dorsally and below, fuscous or yellowish brown elsewhere; second segment pale dorsally, elsewhere lightly infuscate. Intercarinal areas of vertex and pronotum, two parallel submedian bands on mesonotum and lateral angles pale tawny yellow; legs and lower surface of thorax, white, with only mesopleura and mesosternum and a round spot on metapleura reddish brown; markings on legs narrow and rather inconspicuous. Tegmina hyaline; a broad suffusion overlying basal third, except posterior half of clavus, a linear spot on margin of clavus near point of entry of common claval vein, a diffuse spot at apex of costal cell and cell Sc in corium, a border on each side of veins R and  $M_f$  in membrane and an arcuate band from M at transverse line to apex of tegmen covering cells  $M_{s+4}$  and  $Cu_{s+}$  except at apex, reddish brown or fuscous.

Male genitalia as figured. Aedeagus rather long, with two stout flattened spinose processes at same level dorsally near middle; two minute spines on right side at about one-third from apex and a minute spine ventrally at apex. Median stem of suspendium longer than broad at base (almost 5:1), with sides parallel in basal two-thirds, converging in distal third.

Female with pregenital sternite well-developed. Eighth sternite short and broad, Jistinct. First valvifers moderately produced mesad in a lobe which is abruptly bent at its basal angle. First valvulae symmetrical and a little separated at base.

Male: length 3.5 mm, tegmen 3.3 mm. Female: length 3.5 mm, tegmen 3.3 mm.

Material examined. Holotype of, Papua New Guinea: Sepik District, Maprik, Balif Village, 7.vi.1974 (R. M. Bull) (Australian National Insect Collection no. 9426). Other material:  $2 \circ \varphi$ , with same data as holotype.

This species is distinguishable by structural details of the male and female genitalia.

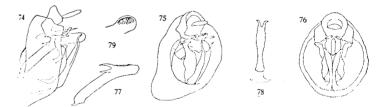


Fig. 74-79.—Perkinsiella falcipennis sp. n. 74, male genitalia, left side; 75, the same, posterolateral view from left; 76, the same, posterior view; 77, aedeagus, left side; 78, suspensorium; 79, base of right first valvula, lateroventral view.

It appears to be the nearest to P. variegata Muir (1910, 8) but differs strongly in the form of the paired medioventral processes of the pygofer. The combined presence of three shite longitudinal bands on the yellowish mesonotum and of a dark suffusion overlying most of the basal third of the tegmen is almost characteristic but may not be evident to poorly-marked specimens.

I take much pleasure in naming this species after Mr. R. M. Bull, of the Southern Sugar Experiment Station.

### Perkinsiella falcipennis sp. n. (Fig. 74-79)

Vertex with basal compartment broader than long (2.0:1), wider at base than at level of anterior margin of eyes (1.6:1). From longer in middle line than broad at widest part (1.9:1), lateral margins slightly concave distad of widest part. Antennawith basal segment about twice as long as broad at apex, moderately compressed, almost twice as wide at apex as at base; second segment not or scarcely compressed, carinate below. Tegmina distad of transverse line narrowing, with anterior margin convex are posterior margin slightly concave, apex acutely rounded; apical portion of tegmenusually curving slightly laterad.

Reddish brown; intercarinal areas of vertex and pronotum pale yellowish brown disc of mesonotum white; frons between eyes darker yellowish brown with a pair of transverse linear markings submedially and a pair of spots laterally; frons distad widest part, genae and apex of clypeus white, a narrow submarginal transverse barat apex of frons light brown. Ventral surface of thorax with sclerites almost uniform brown; legs white, with markings very narrow, post-tibial spur sordid white. Tegmereddish brown, except in costal cell and in apical cells (except the longest) at margineins R and M in corium with minute and sparse fuscous granules; venation of colorous or paler than ground, no fuscous spot present on hind margin of clavus.

Male genitalia as figured. Acdeagus long, with a stout, moderately long media-spine dorsally near base of orifice and a pair of shorter spines subdorsally slight based of this, all directed more or less cephalad. Median stem of suspensorium long than broad at base (about 4.5:1), with lateral margins slightly sinuate.

Seventh abdominal sternite of female short. First valvifers each produced mean the base and elevated in a broadly rounding and slightly reflected lobe, hollowed a submarginally. First valvulae symmetrical at base.

Male: length 3-8 mm, tegmen 4-9 mm. Female: length 4-5 mm, tegmen 5-2 mm.

Material examined. Holotype &, Papua New Guinea: Sepik District, Wabindig-Village, 32 km south of Maprik, 8.vi.1974 (R. M. Bull) (Australian National Inc. Collection no. 9427). Other material: 4 &, 8 \( \rightarrow \), with same data as holotype (I in British Museum (Nat. Hist.)).

The long, distally upswept tegmina serve to distinguish this species from all other in the genus. The genitalia have the same general structure as those of *P. thompson*. The deeply hollowed first valvifers are characteristic.

The specific name is an adjective.

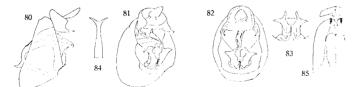


Fig. 80 85.—Perkinsiella boreon sp. n. 80, male genitalia, left side; 81, the same, posterolateview from left; 82, the same, posterior view; 83, genital styles and medioventral processposteroventral view; 84, suspensorium; 85, base of ovipositor, ventral view.

### Perkinsiella borcon sp. n. (Fig. 80-85)

Vertex with basal compartment broader than long (nearly 2:2:1), wider at he than at level of anterior margin of eyes (nearly 1:2:1). From longer than broad if

widest part (1.6:1), lateral margins straight distad of widest part. Antennae with basal segment not compressed, and not twice as wide at apex as at base; second segment only weakly compressed, widest at one-third from base, carinate below.

Yellowish brown; frons with four pairs of submedian spots, two pairs of spots on each side, and each gena with four round spots, pale yellow; ground colour between eyes darker than in distal half; mesonotum with carinae and adjoining areas creamy white, lateral fields with two or three fuscous suffusions; sclerites of lower surface of thorax yellowish, unevenly suffused with brown, legs heavily suffused with yellowish brown, the underlying markings more or less obscured, except near apex of protibiae and mesotibiae; abdominal sternites uniformly dark reddish brown. Tegmina hyaline, more or less strongly suffused with brown, a suffusion overlying apical vein R, all apical cells of M, middle part of first apical cell  $Cu_{tor}$  and a linear spot on commissural margin at point of entry of common claval vein fuscous; veins yellowish brown, densely best with fuscous granules.

Male genitalia as figured. Pygofer in side view with posterior margin straight, abruptly excavate near lower end. Aedeagus relatively long, with a long spine dorsally, perforated near its base, directed cephalad and curving towards right; an equally long spine arising dorsally on left at apex, directed cephalad. Median stem of suspensorium longer than broad at base (about 4:1).

Female with seventh sternite quadrate, with a median pallid line. Eighth sternite short and narrow, thick and polished. First valvifers produced mesad at base in a shallow lobe that basally bears a small eminence which fits into a hollow on the adjacent valvula. First valvula on external margin at base produced cephalad in a thick, parallel-sided polished yellow lobe.

Male: length 4.5 mm, tegmen 4.9 mm. Female: length 5.3 mm, tegmen 5.7 mm.

Material examined. Holotype  $\circlearrowleft$ , Papua New Guinea: Sepik District, Maprik, Balif No. 2 Village, 7.vi.1974 (R. M. Bull) (Australian National Insect Collection no. 9428). Other material: 15  $\circlearrowleft$ , 10  $\circlearrowleft$ , with same data as holotype (1  $\circlearrowleft$ , 1  $\circlearrowleft$  in British Museum (Nat. Hist.)).

This species differs from *P. lalokensis*, to which it is nearest, in the shape of the lateral margin of the pygofer as seen in side view, this being markedly sinuate in *P. lalokensis*. The two species also differ in the form of the female genitalia, the first valvifers of *P. boreon* lacking the deep oblique sulci that are present in *P. lalokensis*. The specific name is a noun in apposition.

#### References

BRIDDIN, G. (1896). Javanische Zuckerrohrschädlinge aus der Familie der Rhynchoten.—

Dt. ent. Z. 40, 105-110.

Kirkaldy, G. W. (1903). Miscellanea Rhynchotalia. No. 7.—Entomologist 36, 179-181.

KIRKALDY, G. W. (1907). Leaf-hoppers—Supplement (Hemiptera).—Bull. Hawaiian Sug. Plrs'
Ass. Exp. Stn no. 3, 186 pp.

MUR, F. (1910). On some new species of leaf-hopper (Perkinsiella) on sugar cane.—Bull.

Hawaiian Sug. Plrs' Ass. Exp. Stn no. 9, 11 pp.

Mur, F. (1913). On some new Fulgoroidea.—Proc. Hawaii. ent. Soc. 2, 237-269.

(Received 5 December 1978)

© Commonwealth Agricultural Bureaux, 1979